

Course Submission Form

Instructions: All courses submitted for the Common Core must be liberal arts courses. Courses submitted to the Course Review Committee may be submitted for only one area of the Common Core and must be 3credits. STEM waiver courses do not need to be approved by the Course Review Committee. This form should not be used for STEM waiver courses.

Form ID CCOREFORM10849814220001	Version No. 159.001	Created by Smalls, Michelle P
Created on 2023-02-08T10:25:59	Last Updated on 2023-04-19T08:45:26	Status Updated on 2023-04-19T10:55:24
Current Status Approved	Course Selected: Subject SCB (SCB - Biology) Catalog Nbr 103	

Course Revision & College	
Form Submission Initial Submission	College LaGuardia CC

Course Data		
Course ID 132872	Subject SCB (SCB - Biology)	Catalog Nbr 103
Catalog Status Approved	Contact Hours 3	No. of Credits 3
CourseTitle Human Biology in Health and Disease		
Course Description This one-semester course provides students with an overview of the structure and function of the human body. The anatomy and physiology of the following organ systems will be discussed: cardiovascular, respiratory, nervous, gastrointestinal, immune and reproductive. Each of these systems will be considered under normal conditions as well as under disease conditions. Contemporary health issues will also be discussed. The laboratory component of the course will involve simulations in a computer lab. CUNY Pathways: Flexible Core-Scientific World		
Department Natural Sciences		
Pre-Requisites/Co-Requisites Pre-requisites of ENG 99 AND CSE 99 AND MAT 96 OR passing scores/exemptions on the CUNY Reading, Writing & Math tests are required.		

Course Syllabus [Attachment Filename(s)]
SCB103_Human_Biology_Syllabus_Revised_3-17-2023.docx

Location(Required or Flexible) and Learning Outcomes	
REQUIRED	FLEXIBLE
English Composition	World Cultures & Global Issues

Math & Quantitative Reasoning



Life and Physical Sciences

US Experience in its Diversity

Creative Expression

Individual and Society

Scientific World

Learning Outcomes: Questions	Learning Outcomes: Responses
<p>* 1. Identify and apply the fundamental concepts and methods of a life or physical science.</p>	<p>Students will identify and apply the basic concepts and methods to explore the fundamental components and systems that make up the human body, focusing on the homeostatic mechanisms and their disruptions. This will include understanding the basic chemistry of life, exploration of the body systems and related diseases, and the understanding of how the nervous and endocrine systems control the human body as whole. Assessment Tool: Bloom's taxonomy questions based on skills of understanding and application will be used to assess this learning outcome. Questions will include but not limited to short answers, labeling, matching, fill in the blank, multiple choice questions and true/false questions. The questions selected will address the learning of fundamental and critical concepts of Human Biology in Health and Disease and their application to solve health issues. These problems will require students to learn from texts and lectures, analyze and synthesize the material content.</p>
<p>* 2. Apply the scientific method to explore natural phenomena, including hypothesis development, observation, experimentation, measurement, data analysis, and data presentation.</p>	<p>Students will explore current health and diseases associated with the varied topics of the course content. Assessment Tool: Blackboard Discussion threads and Written Reports. Students will be expected to comment on case study prompts posted by the professor on blackboard and write reflection statements focusing on developing an ability to participate with self-awareness when interacting as a member of diverse local and global community. For the written reports, students will apply the scientific method to explore the phenomena related to health and diseases, and develop hypothesis, data collection, data analysis, and data presentation.</p>

<p>* 3. Use the tools of a scientific discipline to carry out collaborative laboratory investigations.</p>	<p>Students will work together to develop problem solving skills and learn techniques in laboratory activities related to varied topics in Human Biology necessary for students to acquire important knowledge and information for life-long learning, such as deciphering nutrition and food panels, microscopy technique and analysis, antigen-antibody complexes and blood typing, whys and hows on use of various contraceptive options. Assessment Tool: Group assignments and/or group presentation will be used as tools for students to perform scientific investigations and carry out collaborative work. Specific guidelines and rubrics will be provided to students to guide them in the development of their group projects. Additional assignments may be given to explore and assess students' application of skills (such as the use of chat groups or shared google docs to write and exchange brief individual summaries on the group project).</p>
<p>* 4. Gather, analyze, and interpret data and present it in an effective written laboratory or field work report.</p>	<p>Students will be expected to present certain topics orally and via written reports and a final Research paper as they learn to gather, analyze and interpret observations and data. Assessment Tool: The low stakes written reports and the Final high stakes Research Paper will be used as tools for students to demonstrate their learned skill to produce an effective scientific report based on gathering, analyzing, interpreting and presenting data.</p>
<p>* 5. Identify and apply research ethics and unbiased assessment in gathering and reporting scientific data.</p>	<p>Students will discuss topics about the ethics and unbiased assessment of health-related issues locally and globally. Students will read text, science articles, news articles, health magazine outlets, etc. to explore scientific principles demonstrated in real life settings. Assessment Tool: Homework Assignment(s) covering Case studies via Discussion board forums will be given to students using the topic on the Science of Respiratory distress and clinical trials or the like, to explore nuances of the impact of a "Physical/Natural" Science phenomenon on the 'Social' Science outlook. Students will develop an ability to participate with self-awareness when interacting as a member of diverse local and global communities by identifying and applying research ethics and unbiased assessment in gathering and reporting scientific information. Students will be expected to draw upon their own experience as well.</p>
<p>A. If there is a change to the course title, what is the new course title?</p>	
<p>B. If there is a change to the course description, what is the new course description?</p>	

C. If there is a change to the pre-requisites and/or co-requisites, what are the new pre-requisites and/or co-requisites?

Chair (Approver) Comments

Comments The committee voted to approve this course.

**DEPARTMENT OF NATURAL SCIENCES
LAGUARDIA COMMUNITY COLLEGE
CITY UNIVERSITY OF NEW YORK
STUDENT SYLLABUS**

Course Title: Human biology in health and disease

Course Hours/Credits: 3 hours (2 lecture; 1 Computer lab) – 3 credits

Prerequisites: CSE099, ENG099, MAT096 or Waivers

Instructor:

Office:

Email address:

Class Time:

Office Hours:

Course Information: fulfills the Pathways Life and Physical Sciences requirement

Human Biology is a 3-credit course, intended for non-science majors, comprised of 2 lecture hours and one hour of interactive exercises in a computer lab. This course is designed to provide an overview of anatomical and physiological organ systems under different states of health and disease. A comprehensive tour through the human body will take students through the structure and functioning of several systems, including, but not limited to, the cardiovascular, respiratory, nervous, gastrointestinal, immune, and reproductive systems. Each of these systems will be examined under normal conditions and from the perspective of the disease. A variety of pathological conditions and contemporary health-related issues, including diabetes, heart and kidney diseases, neurodegenerative conditions, autoimmune diseases, cancer, aging, stem cells, genetic engineering, genetic counseling, human microbiome, psychoactive agents, birth control and contraception, sexually transmitted diseases, and health risks associated with drugs and smoking will be covered with an emphasis on how many diseases involve multiple organ systems. A variety of learning activities will be used to broaden the students' awareness of human biological systems, including lectures, videos, virtual laboratory activities and case studies.

Course Textbook: Patton & Thibodeau. 2018. The Human Body in Health & Disease. 7th Edition. Mosby, ISBN 978-0-323-40211-8.

Learning Outcomes, Objectives and/or Competencies:

This course meets the general education (core) science requirement and provides students with opportunities to:

- 1- Develop and utilize critical reasoning skills.
- 2- Understand and apply the scientific method and making a proper hypothesis.
- 3- Enhance and expand their knowledge base of biological principles, with a special emphasis on human organ systems.
- 4- Explore practical and ethical issues of contemporary biology.

Assessment of Student Learning:

Course Evaluation:

Three Online exams including the final (20% each): 60%

Lab reports (3 @ 3% each): 9%

Online quizzes (3@ 4%): 12%

Research paper and Group oral presentation: 15%

Case Studies & Discussion board responses (2@ 2%): 4%

Total: 100 %

Final Grading Scale:

92.5-100 = A

89.5-92.4 = A-

86.5-89.4 = B+

82.5-86.4 = B

79.5-82.4 = B-

76.5-79.4 = C+

72.5-76.4 = C

69.5-72.4 = C-

66.5-69.4 = D+

62.5-66.4 = D

59.5-62.4 = D-

0-59.4 = F

Online Exams: There will be 3 exams on Blackboard. Each exam's value is 20% of the total grade. Questions will be on the topics that are covered in both lectures and computer labs, and will be in the format of multiple choice, labeling, matching, fill in the blank, true/false and short answers. **Exams including final are not cumulative!**

Lab reports: Students will apply the scientific method and write reports based on computer exercises. The exact lab exercises that the students write up will vary from semester to semester, but there will be 3 in total. They are to be submitted electronically to the "Safe Assign/Turnitin" on Blackboard.

Online quizzes: There will be 3 short quizzes on Blackboard, and include multiple choice and true/false questions. Each quiz corresponds to 4% of the total grade.

Research paper and oral presentation: Students will write a research paper on the specific topic and give a presentation in class.

For this assignment, students will be asked to write a 4-page research paper based on the available scientific literature. This assignment provides an opportunity for students to explore an area of their interest in Human Biology in greater depth than time allows in other anatomy/physiology courses. Research in the field of human biology in health and disease has important implications for individuals, and society at large.

As a group, students will develop a question about different diseases that relate to the disruption of normal biology of one system. For example, Multiple sclerosis and Alzheimer's diseases are both related to changing the normal biology of the nervous system. Students will read and analyze the literature, and will form conclusions regarding how malfunctioning of different parts of one system would cause different diseases. Together students will work on a group project, and give a final group oral presentation (in the format of PowerPoint slides).

Although students will work on this project as a group, but each student will turn in an individual research paper. Because this is a group effort, it is expected the content of the papers could be quite similar while each student's writing style must be unique.

There are four components of this project that should be turned in and posted for the instructor (see below):

1- Group project topic

Date:

Only one project topic write-up will be turned in for the whole group via the Discussion board. It should include:

- Title & research question/topic
- Paragraph description of your project (with topics and names of group members)

2- Group final Oral presentation

Date:

Groups are required to use PowerPoint for their final presentation; however, other forms of media may additionally be used (i.e., handouts, videos, overheads, audiotapes). Each presentation should take about 10 minutes and each member in the group is required to participate in the presentation. After the presentation, there will be a 5-minute question and answer period.

3- Peer Review

Date:

Peer review (0.5-1 page) is an evaluation of what each group member contributed to the group project. Evaluate your group members (including yourself) in terms of how much effort and cooperation they put into the task, and any other criteria you feel are important. Please assign each group member a letter grade (A-, B, C+, etc.).

4- Individual Research Paper

Date:

- Length: The paper length should be 4 pages maximum, double spaced and typed.
- Elements:
 - A. Cover sheet (with title, your name and major, course name)
 - B. Abstract; Not more than 200 words
 - C. Introduction
 - D. Body
 - E. Conclusion
 - F. Acknowledgment
 - G. References
- FORM:
 - A. Correct spelling.
 - B. Correct Grammar and use of words (not awkward or inappropriate)
 - D. Proper citation (citations used frequently and listed in reference section).
 - E. The paper should be in APA or MLA format.

Standards (Rubrics) for Grading Research Paper Assignment:

Excellent (100-90% of points):

- Well organized with strong structure
- Clear focus
- Complete – Fully answers the questions

- Clear – Explains the answer comprehensibly
- Effective use of language
- Well supported by the scientific literature
- Demonstrates insight into the issue

Good (89-80% points):

The good paper demonstrates all the above qualities but perhaps to a lesser degree, or demonstrates some of the above qualities but not all of the qualities are presented at a consistently high level.

Satisfactory (79-70% points):

The satisfactory paper presents all of the above qualities but not as strongly as the good paper. Insight is not usually present.

Needs Work (69-60% points):

This paper is weak on many of the desired qualities.

Unacceptable (59-0% points):

This paper presents few, if any, of the desired qualities.

Case Studies and Discussion board responses:

For class participation purposes, discussion board forums will be created on Blackboard, in the “Discussions” section of the course menu. Two specific Case Study assignments will be covered on the ethics and unbiased assessment of health issues in the field, using topics such as Respiratory distress and Parkinson’s disease. The forums require students to carefully read the Case Studies and reply to the prompts posted by the instructor, to answer three questions for each Case Study. Grading will be done at 4 levels using the criteria: (1) Novice/Poor: 25% points, (2) Developing: 50% points, (3) Competent/Good: 80% points, (4) Excellent: 100% points.

Academic Integrity:

Academic dishonesty is unacceptable and will not be tolerated. Cheating, forgery, plagiarism, and collusion in dishonest acts undermine the educational mission of the City University of New York and the students' personal and intellectual growth. Please see: [CUNY Policy on Academic Integrity on the LaGuardia Website](#).

LECTURE and LAB COURSE CALENDAR

Week	Lecture’s Topics (2 hours)	Computer lab’s Topics and Activities (1 hour)
1	Introduction to body, Chemistry of Living things	Virtual lab on “Atomic Structure (Principles): Atoms and isotopes”

2	Chemistry of Living things, discussion of food labels, enzymes	Virtual lab on "Your Diet and Your DNA"
3	Cells, DNA, Genes, Genetic engineering Online Quiz#1	<u>Lab report 1 Due: Student can pick either Lab 1 (Atomic structure) or Lab 2 (Your Diet and DNA) for this report</u> Virtual lab on "Cell Structure: Cell theory and internal organelles"
4	Cell Division, Mitosis, Cancer, Stem cells	<u>Lab report 2 on "Cell Structure: Cell theory and Internal Organelles" Due</u> Virtual lab on "Mitosis: Using a toxic compound from the yew tree in cancer therapy"
5	<u>Exam 1</u> Genetics and Inheritance, Gene therapy, Cloning	Class work: https://learn.genetics.utah.edu/content/genetherapy/
6	Tissues, Blood, Circulatory System Online Quiz#2	Virtual lab on "Antibodies: Why are some blood types incompatible?"
7	Respiratory system, Cardiovascular and respiratory system diseases	<u>Lab report 3 Due: Student can pick either Lab 4 (Mitosis) or Lab 6 (Antibodies) for this report</u> Blood pressure activity, Heart and Lung Models
8	<u>Exam 2</u> Digestive system	Digestive System Model
9	Nervous system, Neurodegenerative diseases	Brain and Neuron Models <u>Discussion board: Case Study I due</u>
10	Immune system, Infectious diseases, HIV	<u>Discussion board: Case Study II due</u>
11	<u>Online Quiz#3</u> Reproductive system, Pregnancy, Human development	<u>Class Activity: What are the stages of development before birth, virtual lab</u> http://www.glencoe.com/sites/common_assets/science/virtual_labs/grade8/LS26/LS26.html
12	Birth control and sexually transmitted diseases	<u>Oral presentation and Final research paper due</u>
13	<u>Exam 3 (Final)</u>	